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(54) Title: COMPOSITE PEPTIDE COMPOUNDS FOR DIAGNOSIS AND TREATMENT OF DISEASES CAUSED BY PRION PROTEINS

(57) Abstract: The present invention relates to diseases caused by prion proteins. Novel composite peptide compounds are disclosed which comprise two or more peptides or peptide fragments optionally linked to a backbone and the peptides or peptide fragments are spatially positioned relative to each other so that they together form a non-linear sequence which mimics the tertiary structure of one or more PrP<sup>Sc</sup>-specific epitopes as evidenced by the test described herein. The use of such conjugates as immunogens for the production of antibodies that specifically bind to the pathogenic form of a prion protein is revealed. Other uses of the composite peptide compounds are also disclosed, such as use in diagnostic assays, production of antibodies and uses as vaccine immunogens for the prophylactic protection and therapeutic treatment of subjects against transmissible prion disease.

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